Claims

1-14. (Cancelled).

15. (Currently Amended) A method for detecting bacterial infection by a polyglutamic acid- (PGA-) producing pathogen in a vertebrate of interest, said method comprising:

detecting a level of soluble PGA in a biological sample from said vertebrate~~,~~; and

comparing the level of soluble PGA to a reference value;

wherein ~~said soluble PGA is indicative of~~ bacterial infection by a PGA-producing pathogen in said vertebrate is indicated if the level of soluble PGA is greater than the reference value.

16. (Previously Amended) The method according to claim 15, wherein the level of said soluble PGA is detected by an immunoassay.

17. (Original) The method according to claim 16, wherein the immunoassay is a competitive assay.

18. (Original) The method according to claim 16, wherein the immunoassay is in a direct format.

19. (Original) The method according to claim 15, wherein the vertebrate is a human, and the biological sample is a blood sample.

20-32. (Cancelled).

33. (Currently Amended) A diagnostic method ~~for detecting bacterial infection by a polyglutamic acid- (PGA-) producing pathogen in a vertebrate of interest,~~ comprising contacting a biological sample prepared from ~~said~~a vertebrate suspected of being infected by a PGA-producing pathogen with an anti-PGA antibody to measure a level of~~detect~~ soluble PGA in said biological sample~~, wherein soluble PGA in said biological sample is indicative of bacterial infection by a PGA-producing pathogen in said vertebrate~~.

34. (Cancelled).

35. (Previously Presented) The method of claim 33, wherein said biological sample is a serum sample.

36. (Previously Presented) The method of claim 33, wherein said vertebrate is a human.

37. (Previously Presented) The method of claim 36, wherein said biological sample is a body fluid sample.

38. (Cancelled).

39. (Previously Presented) The method of claim 37, wherein the level of said soluble PGA is detected by an antigen capture immunoassay.

40. (Currently Amended) A method for detecting infection by a PGA-producing bacterium in a vertebrate of interest, said method comprising:

contacting a biological sample prepared from said vertebrate with an anti-PGA antibody; and

detectingmeasuring a level of soluble PGA in said biological sample,; and

comparing the level of soluble PGA to a reference value;

wherein the level of soluble PGA in said biological sample is indicative of said infection in said vertebrate if the level exceeds the reference value.

41. (Previously Presented) The method of claim 40, wherein said biological sample is a body fluid sample.

42. (Previously Presented) The method of claim 41, wherein said body fluid sample is a blood sample.

43. (Previously Presented) The method of claim 41, wherein said vertebrate is a mammal.

44. (Previously Presented) The method of claim 41, wherein said vertebrate is a human.

45. (Previously Presented) The method of claim 44, wherein the level of soluble PGA is detected by an immunoassay.

46. (Previously Presented) The method of claim 45, wherein said immunoassay is selected from the group consisting of an ELISA, an RIA, a lateral flow assay, a particle agglutination assay, a sandwich assay, and a protein chip assay.

47. (Previously Presented) The method of claim 45, wherein said immunoassay is a n antigen capture immunoassay.

48. (Previously Presented) The method of claim 45, wherein said immunoassay is a non-competitive assay.

49. (Previously Presented) The method according to claim 45, wherein said immunoassay is in a direct assay format.

50. (Cancelled)

51. (Currently Amended) A method for evaluating progression of infection by a PGA-producing bacterium in a vertebrate of interest, said method comprising:

contacting a biological sample prepared from said vertebrate with an anti-PGA antibody; ~~and~~

~~detecting~~measuring a level of soluble PGA in said biological sample; and

comparing the level of soluble PGA to a reference value;

wherein the level of soluble PGA in said biological sample is indicative of the progression of said infection in said vertebrate if it exceeds the reference value.

52. (Previously Presented) The method of claim 51, wherein said biological sample is a body fluid sample.

53. (Previously Presented) The method of claim 52, wherein said body fluid sample is a blood sample.

54. (Previously Presented) The method of claim 52, wherein said vertebrate is a mammal.

55. (Previously Presented) The method of claim 52, wherein said vertebrate is a human.

56. (Previously Presented) The method of claim 55, wherein the level of soluble PGA is detected by an immunoassay.

57. (Previously Presented) The method of claim 56, wherein said immunoassay is selected from the group consisting of an ELISA, an RIA, a lateral flow assay, a particle agglutination assay, a sandwich assay, and a protein chip assay.

58. (Previously Presented) The method of claim 56, wherein said immunoassay is a n antigen capture immunoassay.

59. (Previously Presented) The method of claim 56, wherein said immunoassay is a non-competitive assay.

60. (Previously Presented) The method of claim 45, wherein said immunoassay is in a direct format.

61. (Cancelled).